

Attorney Docket No.: SAA-46-1 (402 P 274)



PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In Re U.S. Divisional Patent Application Of:  
Naismith et al.

Application No.: 10/087,888

Filed: March 2, 2002

For: INPUT/OUTPUT (I/O) SCANNER FOR A  
CONTROL SYSTEM WITH PEER  
DETERMINATION

) Prior Application:  
) Application No. 09/612,636  
) Filed: July 7, 2000  
)  
)  
)  
) Examiner: Not Assigned  
) Group Art Unit: 2121  
)

Commissioner For Patents  
Washington, D.C. 20231

**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT  
WITHIN THREE MONTHS OF FILING OR  
BEFORE MAILING OF FIRST OFFICE ACTION (37 C.F.R. § 1.97(b))**

Dear Sir:

Applicants submit herewith Form PTO-1449 and a copy of the references listed thereon.

Since this Information Disclosure Statement is being filed within three months of the filing date of the Application or before the mailing date of a First Office Action on the merits, whichever event occurs last (37 C.F.R. § 1.97(b)), no certification or fee is due. The Commissioner is hereby authorized to charge any deficiency in fees to Deposit Account No. 19-3875. A duplicate copy of this paper is enclosed for that purpose.

Respectfully submitted,

Dated: 6/17/02

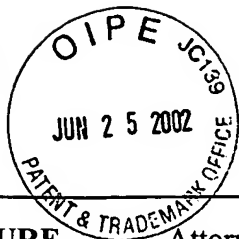
By:

Michael J. Femal  
Michael J. Femal, Reg. No. 27,784  
Square D Company  
1415 South Roselle Road, Executive Plaza  
Palatine, Illinois 60067-7399  
(847) 925-3454

**CERTIFICATION OF MAILING**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner For Patents, Washington, D.C. 20231 on June 18, 2002.

Karen Pyka  
Karen Pyka (148813)



**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT  
PTO-1449**

JMK/nlc 148812

Attorney Docket No.: SAA-46-1 (402 P 274)

Application No.: 10/0087,888

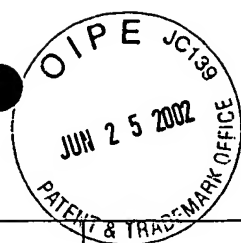
Applicant: Naismith et al.

Filing Date: March 2, 2002

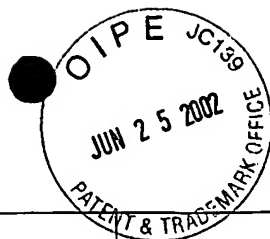
Art Unit: 2121

**U.S. PATENT DOCUMENTS**

Examiner Initial	U.S. Patent Document No.	Name of Patentee or Applicant	Class/ Subclass	Date of Publication
	3,971,000	Cromwell		07/20/1976
	4,319,338	Grudowski et al.		03/09/1982
	4,688,167	Agarwal		08/18/1987
	4,845,644	Anthias et al.		07/04/1989
	4,858,152	Estes		08/15/1989
	4,897,777	Janke et al.		01/30/1990
	4,912,623	Rantala et al.		03/27/1990
	4,937,777	Flood et al.		06/26/1990
	4,949,274	Hollander et al.		08/14/1990
	4,953,074	Kametani et al.		08/28/1990
	4,992,926	Janke et al.		02/12/1991
	5,012,402	Akiyama		04/30/1991
	5,023,770	Siverling		06/11/1991
	5,047,959	Phillips et al.		09/10/1991
	5,072,356	Watt et al.		12/10/1991
	5,072,412	Henderson, Jr. et al.		12/10/1991
	5,109,487	Ohgomori et al.		04/28/1992
	5,122,948	Zapolin		06/16/1992
	5,131,092	Sackmann et al.		07/14/1992
	5,134,574	Beaverstock et al.		07/28/1992
	5,151,896	Bowman et al.		09/29/1992
	5,151,978	Bronikowski		09/29/1992
	5,157,595	Lovrenich		10/20/1992



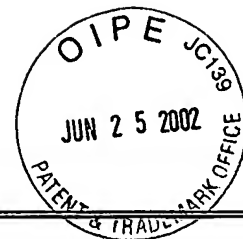
Examiner Initial	U.S. Patent Document No.	Name of Patentee or Applicant	Class/ Subclass	Date of Publication
	5,159,673	Sackmann et al.		10/27/1992
	5,161,211	Taguchi et al.		11/03/1992
	5,165,030	Barker		11/17/1992
	5,179,700	Aihara et al.		01/12/1993
	5,225,974	Mathews et al.		07/06/1993
	5,245,704	Weber et al.		09/14/1993
	5,251,302	Weigl et al.		10/05/1993
	5,283,861	Dangler et al.		02/01/1994
	5,297,257	Struger et al.		03/22/1994
	5,307,463	Hyatt et al.		04/26/1994
	5,321,829	Zifferer		06/14/1994
	5,343,469	Ohshima		08/30/1994
	5,349,675	Fitzgerald et al.		09/20/1994
	5,386,524	Lary et al.		01/31/1995
	5,398,336	Tantry et al.		03/14/1995
	5,406,473	Yoshikura et al.		04/11/1995
	5,420,977	Sztipanovits et al.		05/30/1995
	5,430,730	Sepulveda-Garese et al.		07/04/1995
	5,440,699	Farrand et al.		08/08/1995
	5,446,868	R. A. Gardea, et al.		08/29/1995
	5,528,503	Moore et al.		06/18/1996
	5,598,536	Slaughter, III et al.		01/28/1997
	5,611,059	Benton et al.		03/11/1997
	5,613,115	Gihl et al.		03/18/1997
	5,623,652	Vora et al.		04/22/1997
	5,625,781	Cline et al.		04/29/1997
	5,699,350	Kraslavsky		12/16/1997
	5,734,831	Sanders		03/31/1998



Examiner Initial	U.S. Patent Document No.	Name of Patentee or Applicant	Class/ Subclass	Date of Publication
	5,793,954	Baker et al.		08/11/1998
	5,805,442	Crater et al.		09/08/1998
	5,862,391	Salas et al.		01/19/1999
	5,950,006	Crater et al.		09/07/1999
	5,975,737	Crater et al.		11/02/1999
	5,982,362	Crater et al.		11/09/1999
	5,997,167	Crater et al.		12/07/1999
	6,016,523	Zimmerman et al.		01/18/2000
	6,028,866	Engel et al.		02/22/2000
	6,032,203	Heidhues		02/29/2000
	6,058,251	Okamoto et al.		05/02/2000
	6,122,670	Bennett et al.		09/19/2000
	6,151,640	Buda et al.		11/21/2000

#### FOREIGN PATENT DOCUMENTS

Examiner Initial	Foreign Patent Document			Name of Patentee or Applicant	Date of Publication	T
	Office	Number	Kind			
I	JP	60192447	A	Kono et al.	30.09.1985	X
I	EPO	0 542 657	A1	IBM, Inc.	19.05.1993	
I	EPO	0 814 393	A1	Telia AB	29.12.1997	
	DE	296 00 609	U1	Siemens AG	27.03.1997	
I	DE	44 10 171	C1	Zimmerman et al.	13.04.1995	
/	DE	196 15 093	A1	Zimmerman et al.	23.10.1997	
I	WO	97/18636		Mizuno	22.05.1997	
I	WO	98/53581		Gaw et al.	26.11.1998	



# OTHER PRIOR ART OR NON-PATENT LITERATURE DOCUMENTS

Examiner Initial	(including Author (in capital letters), Title of the article, Title of the item, Date, Pages, Volume-Issue number, Publisher, City and/or Country where published.)	T
/	Abstract of "Implementing distributed controls for FMC's using Internet utilities," S. S. Jagdale and N. Merchant; Computers of Industrial Engineering, Vol.. 31 No. 1-2, p. 87-90; October, 1996 (UK).	
/	Abstract of "Process control takes to the Net," G. Paula; Mechanical Engineering, Vol. 118, No. 12, p. 55, December, 1996..	
<del>1</del>	"Remote interrogation and control of sensors via the internet," Peter L. Furh and Euan F. Mowat; Sensors, Vol. 12 No. 12, 6 pp; December 1995.	
1	Abstract of "Implementation of CAN/CAN bridges in distributed environments and performance analysis of bridged CAN systems using SAE benchmark," H. Ekiz, A. Kutlu and E. T. Powner; Conference Paper, IEEE Southeastern '97, Engineering the new energy, IEEE, p. 185-7, 1996.	
1	Abstract of "Managing interdisciplinary project teams through the Web," R. E. Goodman and P. Chinowsky; Conference Paper, WebbNet 96 - World Conference of the Web Society, pp. 180-5, 1996.	
1	Abstract of "Learning environment for a process automation system using computer networks," J. Lindfors, L. Yliniemi and K. Leivska; Conference Paper, Step '96 - Genes, Nets and Symbols, pp. 137-43, 1996 (Finland).	
1	Abstract of "Distributed agent systems for intelligent manufacturing," D. H. Norrie and B. R. Gaines; Canadian Artificial Intelligence, No. 40, p. 31-3, Autumn 1996 (Canada).	
1	Abstract of Proceedings of AUTOFACT 1995 Conference, "Today's Automated, Integrated Factory," Soc. Manuf., Eng., Dearborn, MI; 1995.	
1	Abstract of "The ECOSSE Control HyperCourse," C. M. Merrick and J. W. Ponton; Computers & Chemical Engineering, Vol. 20, Part B, p. S 1353-8, 1996 (UK).	
1	Abstract of "Chemical-better batch controls," T. Crowl; Control & Instrumentation, Vol. 28, No. 5, p. 53-4, May 1996 (UK).	
1	Abstract of "Industrial software does 32-bit Windows, prepares for the net," W. Labs; I 8CS, Vol. 69, No. 3, p. 23-6, 31-4, March 1996, USA.	
/	Abstract of "A case study for international remote machining," G. C. I. Lin and Kao Yung-Chou; Conference Paper, Proc. SPIE-Int. Soc. Opt. Eng., Vol. 2620, p 553-60, 1995.	
1	Abstract of "Standardization of long-distance protocols," R. Dinges; Journal Paper, Generation Changes in Network Conductor Systems, ITG - Fachberichte, Vol. 134, p. 97-113, 1995 (West Germany).	



Examiner Initial	(including Author (in capital letters), Title of the article, Title of the item, Date, Pages, Volume-Issue number, Publisher, City and/or Country where published.)	T
/	Abstract of "Control system design V. Communications orchestrate process control," F. Glow; In Tech, Vol. 36, No. 9, p. 68-74, Sept. 1989.	
/	Abstract of "Functions and characteristics of local networks adapted to industrial applications," J. Morlais; Electronique Industrielle, No. 97, p. 56-63, Nov. 15, 1985; France.	
/	Abstract of "Intelligent supervisory control of submerged-arc furnaces," Markus A. Reuter, Carla Pretorius, Chloe West, Peter Dixon and Morne Oosthuizen, JOM Vol. 48, No. 12, Dec. 1996, p. 49-51.	
/	Abstract of "Simulation on the integration of process control systems of rolling mill plants through standard networks," Choo Young Yeol, Hwang Hwa Won and Kim Cheeha, Proceedings of the Industrial Computing Conference, Instrument Society of America, Research Triangle Park, NC, USA. P 1-14; Vol. 6, No. 1, 1996.	
/	Abstract of "Environmental waste control digest," Clayton H. Billings; Public Works Vol. 127 No. 7, 6 pp, June, 1996.	
/	Abstract of "Experiments in tele-handling and tele-machining at the macro and micro scales, using the Internet for operational environment transmission," Mamoru Mitsuishi, Toshio Hori, Tomoharu Hikita, Masao Teratani, Takuro Watanabe, Hirofumi Nakanishi and Bruce Kramer; IEEE International Conference on Intelligent Robots and Systems Vol. 2, 1995.	
/	Abstract of "A phototyping and reverse engineering system for mechanical parts-on-demand on the national network," Fred Hansen, Elias Pavlakos, Eric Hoffman, Takeo Kanade, Raj Reddy, Paul Wright; Journal of Manufacturing Systems, Vol. 12 No. 4, p. 269-281; 1993.	
/	Abstract of "Mathematical model and optimization of furfural treating process," Tao Peng, Jinshou Yu and Huihe Shao; Huadong Huagong Xueyuan Xuebao/Journal of East China Institute of Chemical Technology Vol. 17 No. 1, p. 99-104; February 1991.	
/	Abstract of "User's Aspect of Telecommunication and Information Processing in Plant Factory; Hashimoto Yasushi (1); Journal of the Institute of Electronics, Information and Communication Engineers, Vol. 78, NO. 5, p. 475-81, Fig. 3, Ref. 7, 1995. (Japan).	
/	Abstract of "High-efficient application technology of DCS from the viewpoint of users," Oka Norihito (1); Narita Tsutomu (1); (1) Yamatake-Honeywell Co., Ltd.; Otomeshon, Vol. 40, No. 2, p. 24-28, Fig. 5, Part 2, 1995. (Japan)	
/	Abstract of "Users' experience with software tools for process integration. General results; Stougie, L.; Roeterink, H.J.H.; Van Wijk, A.; Stikkelman,	



Examiner Initial	(including Author (in capital letters), Title of the article, Title of the item, Date, Pages, Volume-Issue number, Publisher, City and/or Country where published.)	T
	R.M.; Nov. 1996	
/	Abstract of "Integrated design and process technology. Volume 1;" Cooke, D.; Kraemer, B.J.; Sheu, P.C.Y.; Tsai, J.P.; Mittermeir, R.; Society for Design and Process Science, p. 51-57; 1996. (USA)	
/	Abstract of "Integrated design and process technology. Volume 2;" Tanik, M.M.; Bastani, F.B.; Gibson, D.; Fielding, P.J.; Society for Design and Process Science, p. 423-430, 1996. (USA)	
/	Abstract of "Integrated design and process technology. Volume 2" Tanik, M.M.; Bastani, F.B.; Gibson, D.; Fielding, P.J.; Society for Design and Process Science, p. 306-312, 1996.	
	Abstract of "Need low-cost networking consider DeviceNet," W. H. Moss; InTech Vol. 43:11; p. 30-31, November 1996.	
/	"Plastic Car Bodies Pass the Crash Test," mechanical engineering; Vol. 118, No. 12; December 1996.	
/	<a href="http://www.adeptscience.com/archive_pressroom/html/labtechnet.html">http://www.adeptscience.com/archive_pressroom/html/labtechnet.html</a> ; Adapt PressRoom Archives. A collection of Adept Scientific's archive news releases. Hot Coffee on the Internet!	
/	When Technology Standards Become Counterproductive, Kenneth C. Crater, President, Control Technology Corporation, Hopkinton, MA dated 7/9/99, Pages 1-5	
/	A White Paper State Language for Machine Control, Kenneth C. Crater, President, Control Technology Corporation, Hopkinton, MA dated 7/9/99, Pages 1-11	
L	New PC-based Process Control & Data Acquisition Software Integrates Remote Internet Capabilities with Fast Pentium Support, Fred A. Putnam, LABTECH President, Pages 1-3	
/	August 1996 CONTROL Magazine - In The News - Electric Utility Industry Embarks on Automation Overhaul, pages 1-10	
/	July 1997 CONTROL Magazine - Magazine Software Review - NT Package Give Plant Access Through the Web, pages 1-3	
/	October 1996 CONTROL Magazine - Software Review - Article Archives, pages 1-2	
/	ICS Instrumentation & Control Systems - Windows NT for real-time control: Which way to go? - ICS Magazine, pages 1-8	
/	I&CS July 1999 - SPECIAL REPORT SOFTWARE - Software: Open source OSs, objects, Web-based communications challenge status quo,	



Examiner Initial	(including Author (in capital letters), Title of the article, Title of the item, Date, Pages, Volume-Issue number, Publisher, City and/or Country where published.)	T
/	(Wayne Labs, Senior Technical Editor), pages 24-49	
/	Landis & Staefa MS 2000, pages 1-2	
/	Landis & Staefa Standards and Open Protocols Integration System Architecture, page 1	
/	Annabooks Bookstore, Programming and Interfacing the 8051, by Sencer Yeralan and Asutosh Ahluwalia, pages 1-2	
/	SoftPLC Corporation - Java Support in SoftPLC Corp. Products, pages 1-5	
/	Mach J. Company, MachJ, an embeddable, clean room Java Virtual Machine, page 1	
/	SoftPLC Corporation - The History of Programmable Controllers, Looking Back From the Year 2000 A.D. (Or, How Computers Replaced Proprietary PLC'S), pages 1-7	
/	SoftPLC Corporation - TOPDOC: Advanced PLC program development & documentation software, pages 1-12	
/	Control Engineering Online Magazine Articles (July 1998) - No. that's not a PC, it's a PLC, pages 1-2	
/	Rockwell International Corporation, Allen-Bradley Introduces PLC-5/80E Controller for Ethernet Communication Networks	
/	Rockwell Automation - Search Results, pages 1-2	
/	Rockwell International Corporation, Vision & Direction, The Direction of Automation Systems, pages 1-4	
/	Rockwell International Corporation, Vision & Direction, The Role of Open Systems, pages 1-4	
/	Rockwell International Corporation - Vision & Direction - The Direction of Automation Systems - Emergence of Application-Specific Control Solutions, pages 1-2	
/	Rockwell International Corporation - Vision & Direction - The Direction of Automation Systems - The New Factory Worker, pages 1-2	
/	Rockwell International Corporation, Vision & Direction, Control System Deliverables - The Next Step, pages 1-2	
/	Rockwell International Corporation, Vision & Direction, Conclusion & Acknowledgments, pages 1-2	
/	Rockwell International Corporation - Choices - Perspectives on the Future of Automation Control, page 1	





Examiner Initial	(including Author (in capital letters), Title of the article, Title of the item, Date, Pages, Volume-Issue number, Publisher, City and/or Country where published.)	T
/	Rockwell International Corporation - Allen-Bradley - Networks - Ethernet for Industrial Control - An Ethernet White Paper - April 21, 1998, pages 1-13	
/	Rockwell International Corporation - Automation Systems Control - General - World-Class Automation Systems from Allen-Bradley, Last Updated: May 7, 1998, pages 1-12	
/	PC QUEST, Dec '97 - Point, click, Control - C-Programmable controllers take the pain out of embedded control, pages 1-2	
/	berthel - automation with imagination - PCI 100 - Programmable logic controller for SIMATIC/IBM IPC, pages 1-3	
/	YAHOO! Personalized Search Results for programmable logic controller internet access, pages 1-3	
/	SIEMENS - SIMATIC report 1/97 - New in the SIMATIC Library, pages 1-2	
/	CONTROL Magazine August 1998 - Field Test - DYNAMIC SOFTWARE MAKES CONTROL INTEGRATION EASIER, pages 1-2	
/	Design and Reuse Web Site - EDTN Network - Analyze IP Database Content - Analyse Reuse Blocks per taxonomy tree, pages 1-10	
/	Engineering Information, Inc. - Ei CPX WEB [1990-94]	
/	Using World Wide Web for Control Systems, F. Momal, C. Pinto-Pereira, AT Division CERN, 1211 Geneva 23, <a href="http://mish231.cern.ch/Docs/ICALEPCS/1995/icalep95.htm">http://mish231.cern.ch/Docs/ICALEPCS/1995/icalep95.htm</a> .	
/	"Ethernet Base Gateway Product," AEG-Modicon, published 1991.	
/	"Modicon Modbus Plus Network BM85 Bridge Multiplexer User's Guide," Groupe Schneider, August 1995.	
/	"Modicon Modbus Plus Network Planning and Installation Guide," AEG Schneider Automation, April 1996	
/	"Open Modbus/TCP Specification," A. Swales, 9/3/97	
*	"MEB Installation and Programming Manual," Niobrara Research and Development Corporation, 9/24/97	
/	"MEB-TCP Installation and Programming Manual," Niobrara Research and Development Corporation, 10/1/97	
/	"Internet Protocol, Darpa Internet Program, Protocol Specification - RFC:791," Defense Advanced Research Projects Agency, September 1981	



Examiner Initial	(including Author (in capital letters), Title of the article, Title of the item, Date, Pages, Volume-Issue number, Publisher, City and/or Country where published.)	T
✓	"Transmission Control Protocol, Darpa Internet Program, Protocol Specification - RFC:793," Defense Advanced Research Projects Agency, September 1981	
✗	"[comp.unix.programmer] Unix-Socket-FAQ For Network Programming," Vic Metcalfe, Andrew Gierth and other contributors, 1/22/98	
✓	"TCP/IP Illustrated, Vol. 2, The Implementation," Gary R. Wright, W. Richard Stevens, 1997	
✓	"Winsock 2 Information," Bob Quinn, 1995-1998 (last updated December 5, 1998)	
✓	Website Information of PROFIBUS: Technical Overview	
✓	Website Information of ODVA - The Open DeviceNet's Vendor Association	
✓	Website of PROFIBUS International - Welcome Page	
✓	LabVIEW Graphical Programming for Instrumentation, Networking Reference Manual, © Copyright 1993, 1994 National Instruments Corporation, Part Number 320587B-01, September 1994.	
✓	LabVIEW Graphical Programming for Instrumentation, Tutorial for Windows, © Copyright 1993, 1994 National Instruments Corporation, Part Number 320593B-01, September 1994.	
✓	LabVIEW Graphical Programming for Instrumentation, Data Acquisition VI Reference Manual for Windows, © Copyright 1992, 1994 National Instruments Corporation, Part Number 320536B-01, September 1994.	

Examiner: \_\_\_\_\_

Date  
Considered:

Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.